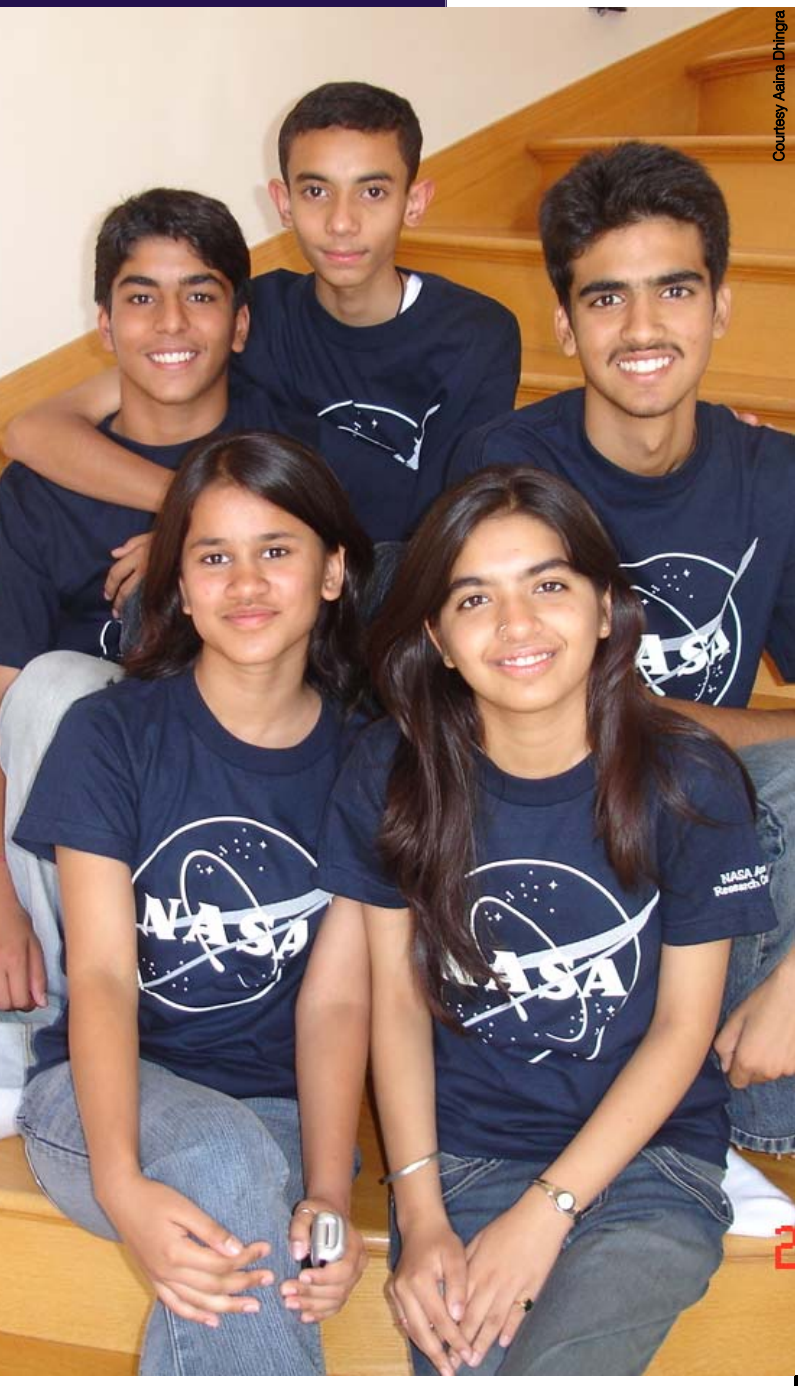
Class IX Dreamers Design Space Settlement

Indian Students Win NASA Award

By BHAVYA GUPTA



Back, from left: Sanyam Mehra, Abhisaar Sharma and Karan Jain. Front, from left: Bhavya Gupta and Aaina Dhingra.

I have a dream, a dream that one day, my four children will be able to go into outer space and live a free life without the shackles of the earth."

These words by Emmanuel Ratnaraj, mentor for our group of Apeejay School space architects in Jalandhar, Punjab, paraphrase the famous "I have a Dream" speech by American civil rights leader Martin Luther King, Jr. These words inspired us to create a winning design in the International Space Settlement Design Contest organized by the NASA-Ames Research Center in California and the U.S. National Space Society.

Our team—comprising Abhisaar Sharma, Karan Jain, Sanyam Mehra, Aaina Dhingra and me—developed a research-based proposal for a space settlement where humans could dwell permanently in orbit around the earth. Our model was titled "Babel" after the biblical story about people trying to build a tower in an attempt to stay united, make a name for themselves and reach the heavens. After eight months of laborious work, guided by our teachers Ranjana Sud and Mr. Ratnaraj, we submitted an 80-page proposal, one of 109 submitted by 11- to 18-year-olds from around the world. We won in the junior, small group category.

Besides increasing our knowledge and giving us the ability to harness the resources of space, our vision is that a space station like Babel, designed to sustain 10,500 people, could also ensure the survival of the human race, in case life on earth is destroyed in a catastrophe. In our design, gravity would be generated through centrifugal force, which is generated by rotating the settlement. We planned for Babel to be constructed by robots, in space. Our proposal contained an estimated construction time, 22 years; cost, $85-125 billion; and funding, from governments of different countries, private investors and the stock market.

To win the prize, we had to think of everything. So we designed Babel's water, air, waste, electricity and distribution systems to provide an earth-like environment and even protection against radiation, asteroids and meteors.

We and five other winning teams—from Romania, Uruguay and California—visited the Ames Research Center on June 19. We were shown models of aircraft, a space module, the world's largest vertical motion simulator, the world's largest wind tunnels and pressure chambers.

We also had some leisure time, to visit San Francisco, Disneyland and Universal Studios in Los Angeles.

We not only got an opportunity to expand our intellectual horizons, but came to know about American culture. There was an exchange of different innovative and intellectual ideas about space settlement design among the winning teams. The students got to know about each other's countries and had a great time together.

***Bhavya Gupta** is now a class X student at Apeejay School, Jalandhar, Punjab.*